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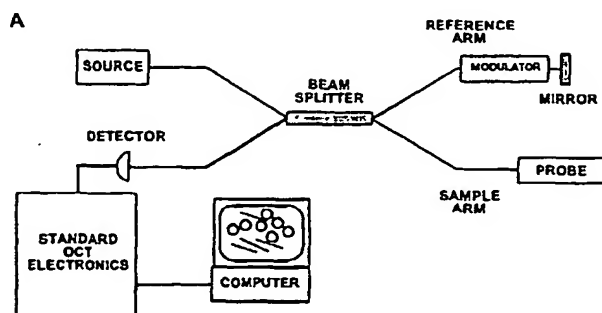
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(54) Title: APPARATUS FOR LOW COHERENCE RANGING



(57) **Abstract:** An apparatus for performing low coherence ranging of a sample with high transverse resolution and large depth of focus, comprising an optical ranging system comprising a light source, a means for directing light from the light source to the sample, a means for directing reflected light from the sample to a detector, at least one detector, a means for processing light data received by the detector and which generates an image; and an optical element having a transverse resolution defined as  $\Delta r$  is less than or equal to about  $5\mu\text{m}$ , and a depth of focus  $\Delta z$  of at least about  $50\mu\text{m}$ .

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